

data comprise data defining the evolution of said cycles in a temporal vicinity of said cyclical sound waveform and the change in shape of said cycles in said temporal vicinity from cycle to cycle;

(c) designating said successive cyclical sound waveform sample as a cyclical sound waveform sample and repeating (b);

(d) repeating (c) a plurality of times to generate a sequence of said successive cyclical sound waveform samples corresponding to a plurality of said cycles; and

(e) outputting the samples of said sequence to generate a waveform representing a cyclical sound.

3. (Twice Amended) A method according to claim 1 in which said transformation data does so by reference to a predetermined reference waveform sequence.

6. (Twice Amended) A method according to claim 5 in which said transformation data does so by reference to a predetermined reference waveform sequence and in which said transformation data represents a transformation which approximates a transformation which would transform a first displacement vector, extending from a first time point on said reference waveform sequence to a corresponding time point on the waveform to be synthesised, to a second displacement vector extending from a second point, successive to the first, on said reference waveform sequence to a corresponding second point on the waveform to be synthesised.

8. (Twice Amended) A method according to claim 1, in which said step (b)

X3 comprises calculating said transformation data from a set of stored waveform values.

18. (Amended) Synthesis apparatus comprising:

(a) means for generating a cyclical sound waveform sample;

(b) means for generating a successive cyclical sound waveform sample from
said cyclical sound waveform sample and transformation data, wherein said
transformation data comprise data defining the evolution of said cycles in a temporal
vicinity of said cyclical sound waveform and the change in shape of said cycles in said
temporal vicinity from cycle to cycle;

(c) means for designating said successive cyclical sound waveform sample
as a cyclical sound waveform sample and repeating (b);

(d) means for repeating (c) a plurality of times to generate a sequence of said
successive cyclical sound waveform samples corresponding to a plurality of said cycles;
and

(e) means for outputting the samples of said sequence to generate a
waveform representing a cyclical sound.
